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Date: Monday, September 24, 2001**No. of pages (including cover):** 20**Matter No.:** 09507112**TO**

Examiner Hines

Facsimile No.: 703-308-4242**Voice Phone No.:** 703-305-0487**FROM**

Melissa W. Acosta, Ph.D.

Phone No.: 713-651-5407**User ID:** 1768 **Floor:** 38**FAX RECEIVED**

SEP 24 2001

GROUP 1600

OFFICIAL

COMMENTS

Examiner Hines,

Please see the enclosed amendment which was filed on July 30, 2001.

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SEP 24 2001

GROUP 1600

Atty Docket No.: P00965US0

Inventor: James M. Musser, et al.

Application No.: 08/180,965

Filing Date: December 2, 1993

Title: VACCINES CONTAINING CYSTEINE PROTEASE AND METHODS TOPROTECT
AGAINST GROUP A STREPTOCOCCI

Documents Filed:

Amendment Transmittal (1 page)

Amendment under 37 CFR 1.116 (15 pages)

Fee Transmittal (1 page)

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Deposit Account 08-2375 in the amount of \$1350.00

Via: Express Mail EK 102717715US

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Date: July 30, 2001

Atty Docket No.: P00965US0

Inventor: James M. Musser, et al.

BAYLOR



Application No.: 08/160,965

Filing Date: December 2, 1993

Title: VACCINES CONTAINING CYSTEINE PROTEASE AND METHODS TOPROTECT
AGAINST GROUP A STREPTOCOCCI

Documents Filed:

Amendment Transmittal (1 page)

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Fee Transmittal (1 page)

Return Post Card

Deposit Account 06-2375 in the amount of \$1350.00



Via: Express Mail EK 102717715US

Sender's Initials: MWA/svh

Date: July 30, 2001

| AMENDMENT TRANSMITTAL LETTER | | | Docket No. P00965US0 |
|-------------------------------|---------------------------------|----------------------|-------------------------|
| Application No. 08/160,965 | Filing Date December 2, 1993 | Examiner J. Hines | Group Art Unit 1645 |

Applicant(s): James M. Musser and V. Kapur

Invention: VACCINES CONTAINING CYSTEINE PROTEASE AND METHODS TOPROTECT AGAINST GROUP A STREPTOCOCCI

TO THE COMMISSIONER FOR PATENTS

Transmitted herewith is an amendment in the above-identified application.

The fee has been calculated and is transmitted as shown below.

| CLAIMS AS AMENDED | | | | | |
|--|---|---|-----------------------------------|---------|---------|
| | Claims Remaining After Amendment | Highest Number Previously Paid | Number Extra Claims Present | Rate | |
| Total Claims | 55 | - 20 = | 35 | x 18.00 | 630.00 |
| Independent Claims | 12 | - 3 = | 9 | x 80.00 | 720.00 |
| Multiple Dependent Claims (check if applicable) <input type="checkbox"/> | | | | | |
| Other fee (please specify): | | | | | |
| TOTAL ADDITIONAL FEE FOR THIS AMENDMENT: | | | | | 1350.00 |

☒ Large Entity

☐ Small Entity

☐ No additional fee is required for this amendment.

☒ Please charge Deposit Account No. 06-2375 in the amount of \$ 1350.00.
A duplicate copy of this sheet is enclosed.

☐ A check in the amount of \$ _____ to cover the filing fee is enclosed.

☒ The Commissioner is hereby authorized to charge and credit Deposit Account No. 06-2375 as described below. A duplicate copy of this sheet is enclosed.

☒ Credit any overpayment.

☒ Charge any additional filing or application processing fees required under 37 CFR 1.16 and 1.17.


Melissa W. Acosta

Attorney Reg. No.: 45,872

FULBRIGHT & JAWORSKI L.L.P.
1301 McKinney, Suite 5100
Houston, Texas 77010-3095
(713) 651-5407

Dated: July 30, 2001

Amendment Transmittal
I hereby certify that this correspondence is being deposited with the U.S. Postal Service as Express Mail, Airbill No. EK102717715US, in an envelope addressed to: Commissioner for Patents, Washington, DC 20231, on the date shown below.

Dated: July 30, 2001 Signature:  (Staci Harris)

Application No. 08/160,965

Docket No. HO-P00965US0

EXPRESS MAIL NO. EK102717715US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
James M. Musser and V. Kapur

Application No.: 08/160,965

Group Art Unit: 1645

Filed: December 2, 1993

Examiner: J. Hines

For: VACCINES CONTAINING CYSTEINE
PROTEASE AND METHODS TO PROTECT
AGAINST GROUP A STREPTOCOCCI

AMENDMENT UNDER 37 CFR 1.116

Box AF
Commissioner for Patents
Washington, DC 20231

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SEP 21 2001

GROUP 1600

Dear Sir:

In response to the Office Action dated May 30, 2001, please amend the above-identified U.S. Patent application as follows:

In the Claims

Please cancel claim 3. Please substitute the below amended claims for claims 1 and 4-6.

1. (Amended four times) A vaccine comprising:

a physiologically acceptable non-toxic vehicle containing a purified non-proteolytic cysteine protease, which confers immunity to a mammal against Group A streptococcal infection, wherein said cysteine protease comprises at least one amino acid substitution and said amino acid substitution occurs at the amino acid position selected from the group consisting of Lys145, Gln185, Cys192, His340, Asn356 and Trp357.